

ABSTRACT

A new method and structure is provided for the creation of a semiconductor inductor. Under the first embodiment of the invention, a semiconductor substrate is provided with a scribe line in a passive surface region and active circuits surrounding the passive region. At least one bond pad is created on the passive surface of the substrate close to and on each side of the scribe line. A layer of insulation is deposited, a layer of dielectric is deposited over the layer of insulation, at least one bond pad is provided on the surface of the layer of dielectric on each side of the scribe line. At least one inductor is created on each side of the scribe line on the surface of the layer of dielectric. A layer of passivation is deposited over the layer of dielectric. The substrate is attached to a glass panel by interfacing the surface of the layer of passivation with the glass panel. The substrate is sawed from the backside of the substrate in alignment with the scribe line. The silicon that remains in place in the passive surface of the substrate underneath the scribe lines is removed by etching, the glass panel is separated along the scribe line. Under the second embodiment of the invention, the inductor is created on the surface of a thick layer of polymer that is deposited over the layer of passivation.